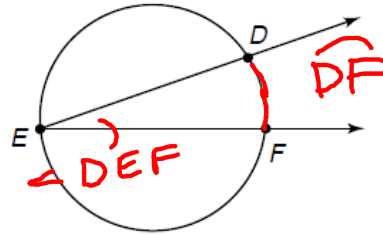


An **inscribed angle** of a circle is an angle whose vertex is on the circle and whose sides contain chords of the circle.

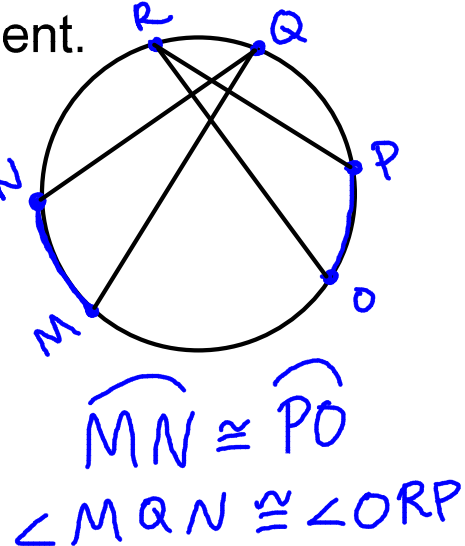
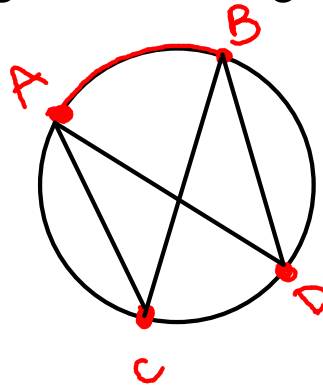
If an angle is inscribed in a circle, then the measure of the angle equals one-half the measure of its intercepted arc.

$$\angle DEF = \frac{1}{2}(m \widehat{DF})$$

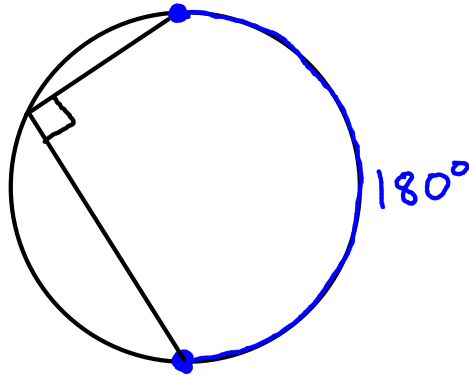


If two inscribed angles of a circle or congruent circles intercept congruent arcs or the same arc, then the angles are congruent.

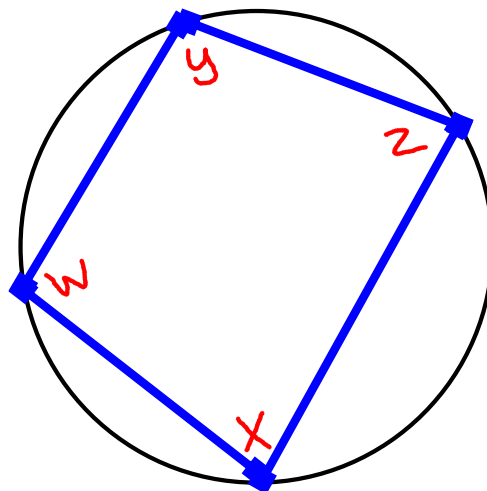
$$\angle ACB \cong \angle ADB$$



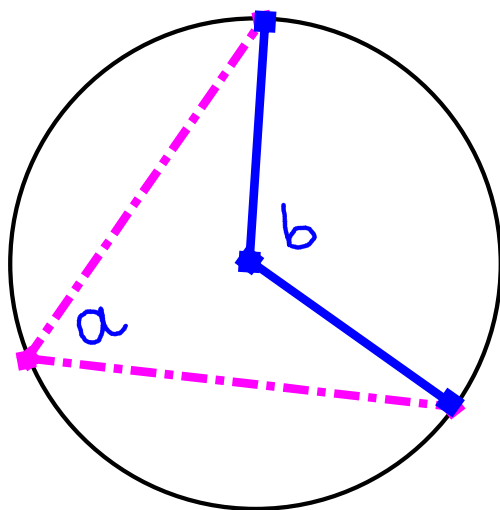
If an inscribed angle of a circle intercepts a semicircle, then the angle is a right angle.



If a quadrilateral is inscribed in a circle, then its opposite angles are supplementary.



$$\begin{aligned}x + y &= 180 \\w + z &= 180\end{aligned}$$



$$a = \frac{1}{2}b$$